

Date: Tuesday, 21/10/2008 10:43:38 AM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : LEFT ARM WELDMENT
<b>Job Number</b> : 42763	
<b>Estimate Number</b> : 12080	
<b>P.O. Number</b> :	<b>Part Number</b> : D33543
<b>This Issue</b> : 21/10/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3354 REV C
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : C
<b>Previous Run</b> : 42495	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 10/11/2008 <b>Qty:</b> 6 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>JUD 08.10.21</u>	
<b>Comment</b> : est rev A 06.01.23 new issue EC	
Est Rev:B 07-12-10 rev C dwg DD verified by:EC	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M4130NR1250	4130N ROUND BAR 1.250
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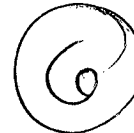
**Comment:** Qty.: 0.6300 f(s)/Unit Total: 3.7800 f(s) 1  
 AISI 4130 ROUND BAR 1.250" dia. batch: 109744 37800

DTP 08/11/09

2.0	HARDINGE	HARDINGE CNC LATHE SMALL
-----	----------	--------------------------



**Comment:** 1-TURN AS PER FOLIO FA623 & DWG D3354  
 FOLIO REV: AA  
 DWG REV: C FA624



2-DEBURR AS REQUIRED

DTP 08/11/09

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

DTP 08/11/09

4.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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**Comment:** CONVENTIONAL MILLING MACHINE  
 1-Drill cotter pin hole as per dwg D3354

DTP 08/11/09

2-Debur

5.0	QC8	SECOND CHECK
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**Comment:** SECOND CHECK

gmp 08/11/09

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 21/10/2008 10:43:39 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LEFT ARM WELDMENT

Job Number: 42763

Part Number: D33543

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *misc*

*PL 08-11-10*

*(L6)*

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*08/11/12*

Job Completion



*MF 08-11-10*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 142763
<b>Description:</b> Wheel Shaft		<b>Part Number:</b> D3354-3
<b>Inspection Dwg:</b> D3354	<b>Rev:</b> C	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

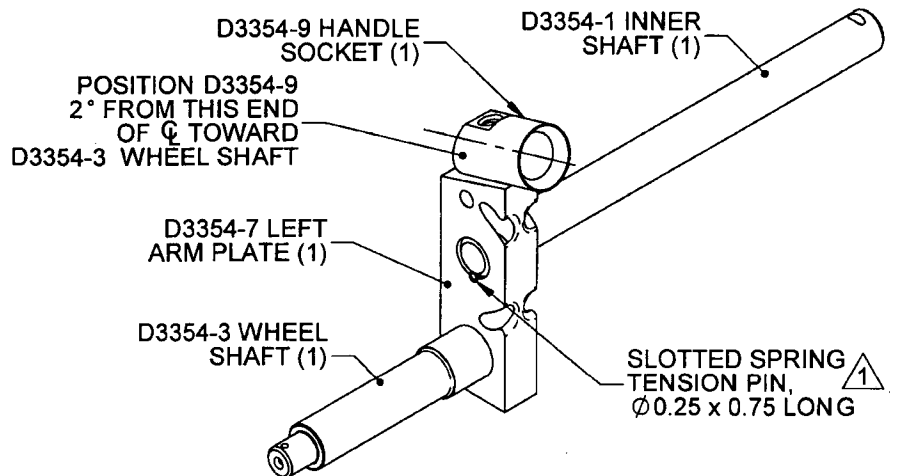
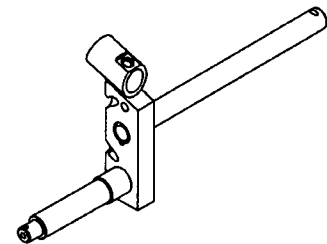
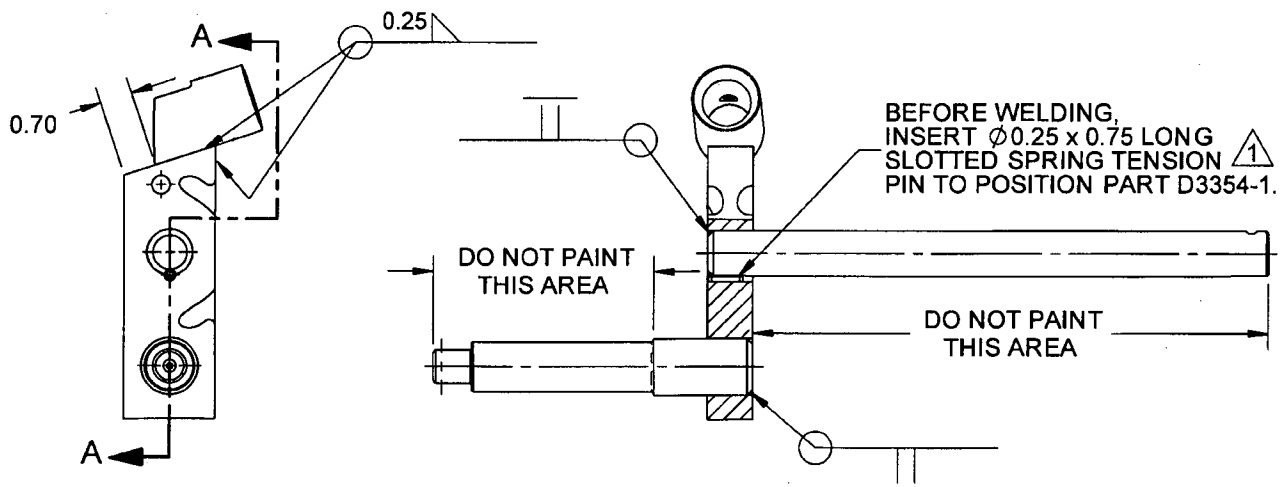
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
7.04	+/-0.030	7.040	✓			
4.020	+0.010/-0.000	4.025	✓			
0.85	+/-0.030	0.842	✓			
0.06	+/-0.030	0.060	✓			
0.13	+/-0.030	0.130	✓			
Ø1.250	+0.001/-0.004	1.246	✓			
Ø1.103	+0.001/-0.002	1.101	✓			
0.750 Thread	+/-0.010	0.743	✓			
0.03 x 45°	+/-0.030 x 0.5°	0.04 x 45°	✓			
→ Ø0.152	+0.005/-0.001	0.154	✓			
R0.02	+/-0.030	0.020	✓			
R0.050	+/-0.010	0.050	✓			
→ 0.660	+/-0.010	0.666	✓			

<b>Measured by:</b> <i>[Signature]</i>	<b>Audited by:</b> <i>[Signature]</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/11/04	<b>Date:</b> 08/11/10	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue	KJ/JLM	
B	07.04.20	Ø0.152 dimension removed	KJ/JLM	
C	08.01.16	Dwg Rev updated	KJ/EC/DD	<i>[Signature]</i>

**DART****RELEASED**  
07.12.06

DESIGN <i>RF</i>	DRAWN BY <i>DC</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LB</i>	APPROVED <i>MP</i>	DRAWING NO. <b>LEFT ARM WELDMENT</b>	REV. C SHEET 1 OF 7
DATE <b>07.12.06</b>		TITLE <b>D3354</b>	SCALE 1:4
REV	DATE	DESCRIPTION	
A	04.12.13	NEW ISSUE	
B	07.02.02	REVISED DIMENSIONS	
C	07.12.06	CHANGE TOLERANCE ON D3354-7 LEFT ARM PLATE HOLE FOR D3354-3 WHEEL SHAFT	

**D3354-041 LEFT ARM WELDMENT****D3354-042 MIRROR ARM WELDMENT****SECTION A-A****NOTES:**

- 1) POSSIBLE SUPPLIER: SPAENAU, P/N TP-134
- 2) WELD PER DART QSI 004
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

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WORK ORDER  
NO. 42763

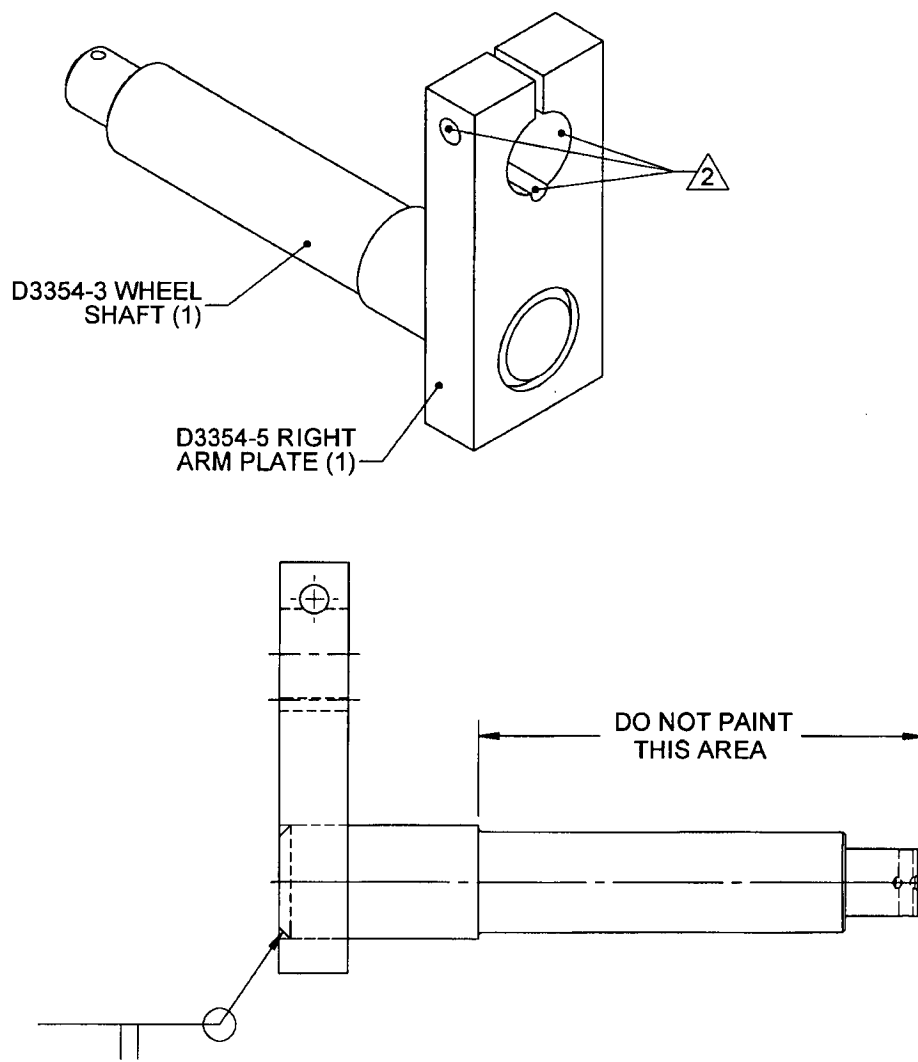
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CHECKED <i>12</i>	APPROVED <i>WP</i>	DRAWING NO. <b>D3354</b>	REV. C SHEET 2 OF 7
DATE <b>07.12.06</b>		TITLE <b>LEFT ARM WELDMENT</b>	SCALE 1:2

RELEASED  
01/12/07 *WJ*



**D3354-043 RIGHT ARM WELDMENT**

**NOTES:**

- 1) WELD PER DART QSI 004
- 2) COVER INSIDE HOLES PRIOR PAINTING
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3 WITHOUT NOTICE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

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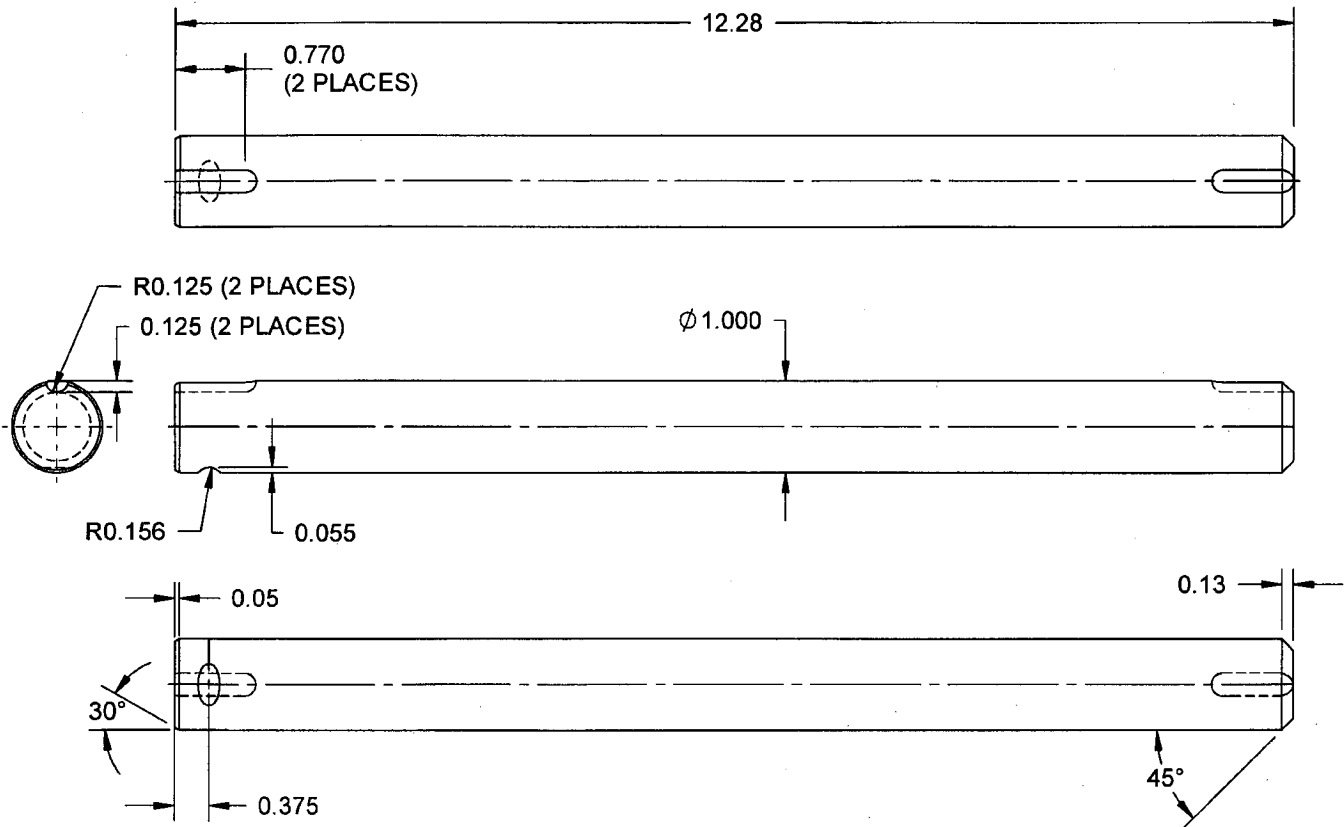
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CHECKED <i>g</i>	APPROVED <i>MP</i>	DRAWING NO. D3354	REV. C SHEET 3 OF 7
DATE 07.12.06		TITLE LEFT ARM WELDMENT	SCALE 1:2

RELEASED  
6/12/07 *W*



### D3354-1 INNER SHAFT

#### NOTES:

- 1) MATERIAL: AISI-4140 OR ASTM A304-02/ A-434-BC/ A193-03 - GRADE-B7/ A29-03/ A322-91 TO AMENDMENT 1 OR UNS#-G41400 ROUND BAR,  $\phi$ 1.250 (REF. DART SPEC. M4140H-R)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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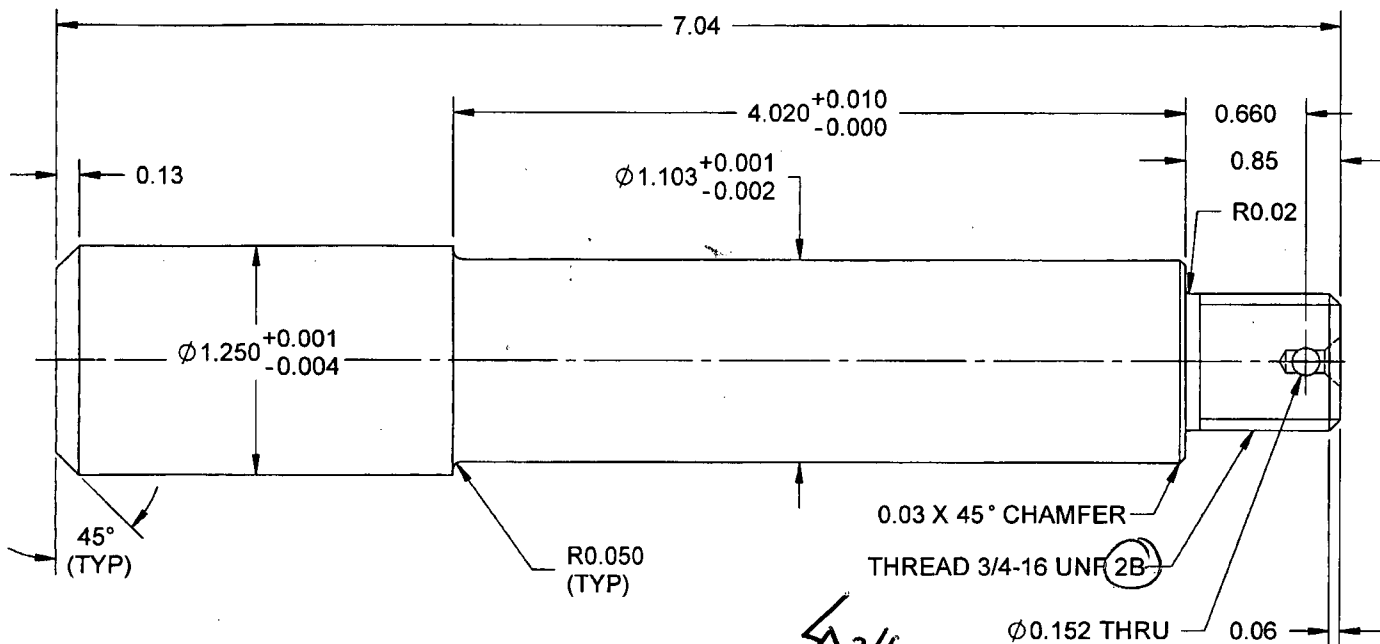
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DATE <b>07.12.06</b>		TITLE <b>LEFT ARM WELDMENT</b>	SCALE 1:1

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**D3354-3 WHEEL SHAFT**

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**NOTES:**

- 1) MATERIAL: AISI-4130/ AISI-4140 OR ASTM A304-02/ A-434-BC/ A193-03 - GRADE-B7/ A29-03/ A322-91 OR UNS#-G41400 ROUND BAR,  $\phi$  1.250 (REF. DART SPEC. M4140H-R)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

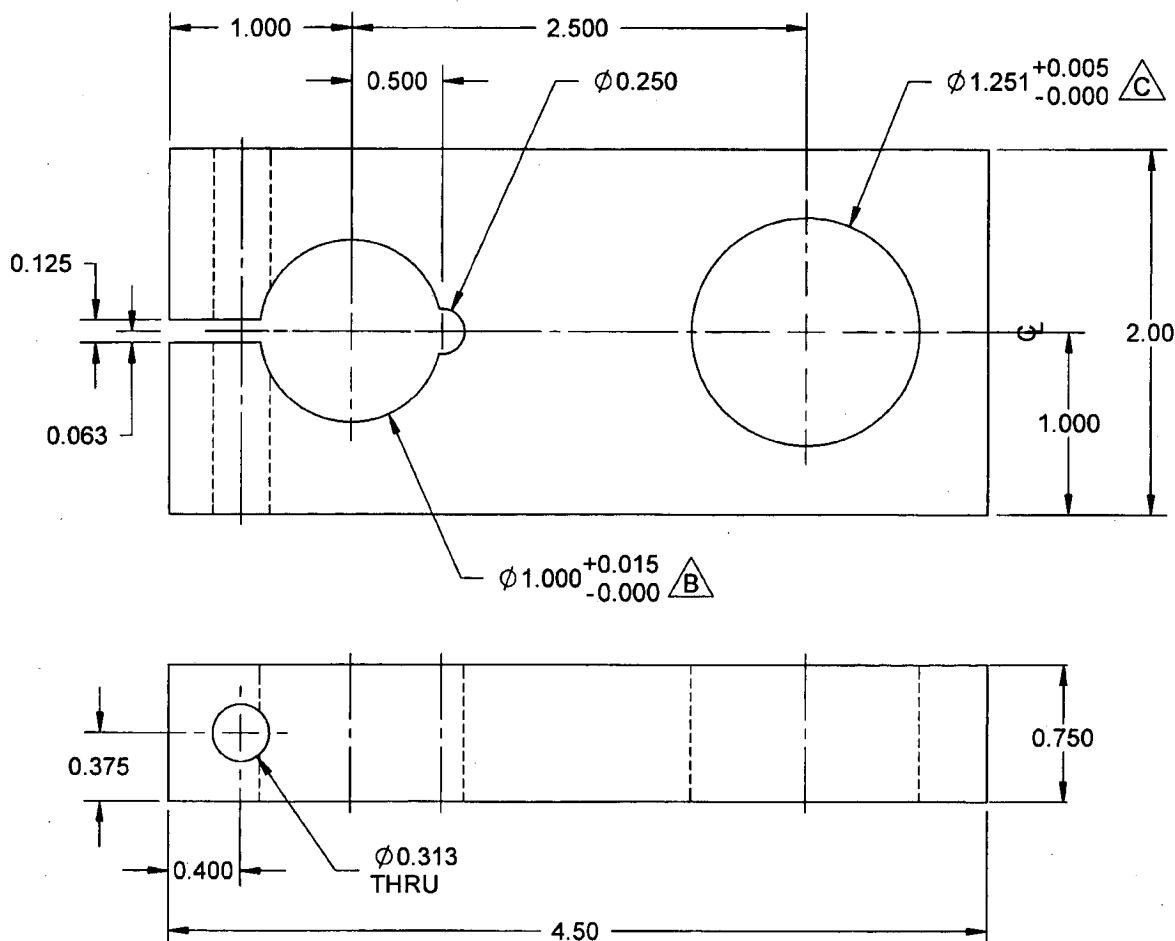
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DATE 07.12.06		TITLE LEFT ARM WELDMENT	SCALE 1:1

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07/12/07 *[Signature]*



### D3354-5 RIGHT ARM PLATE

#### NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40.21, 38W/44W/50W/60W/70W, 0.75 THICK MILD STEEL BAR (REF. DART SPEC. M1010-B)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

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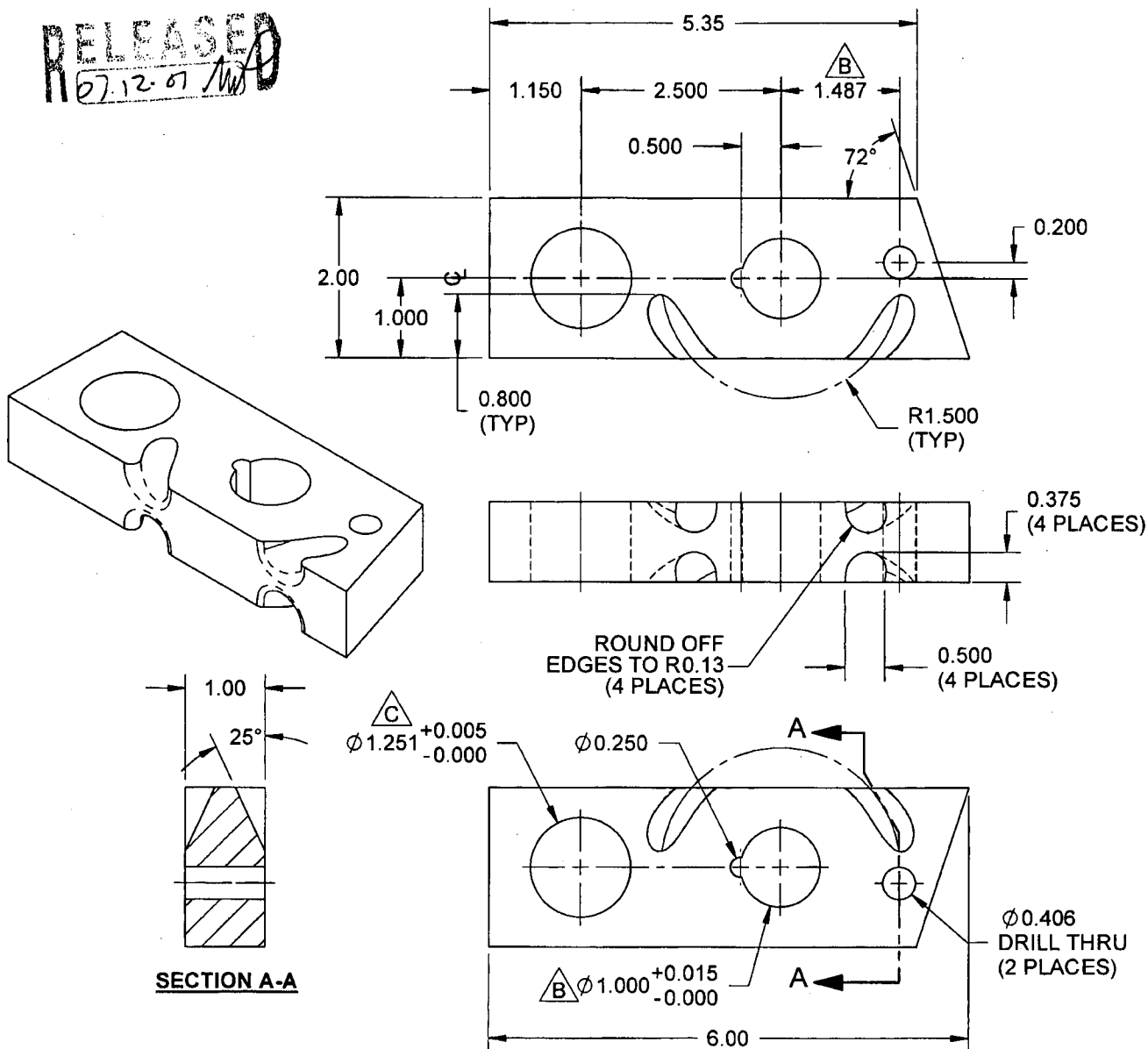
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DATE <b>07.12.06</b>		TITLE <b>LEFT ARM WELDMENT</b>	SCALE 1:2

RELEASED  
07.12.07 *MM*



### D3354-7 LEFT ARM PLATE

#### NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40.21, 38W/44W/50W/60W/70W, 1.00 THICK MILD STEEL BAR (REF. DART SPEC. M1010-B)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

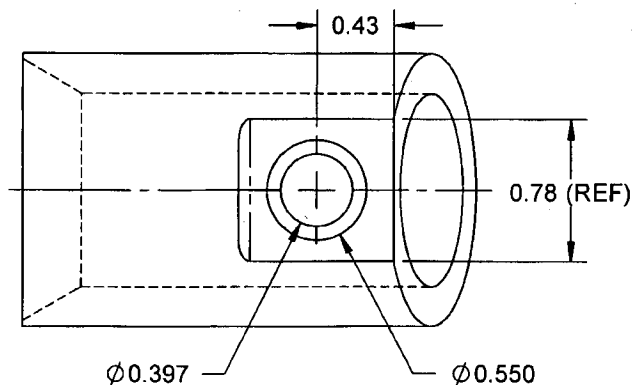
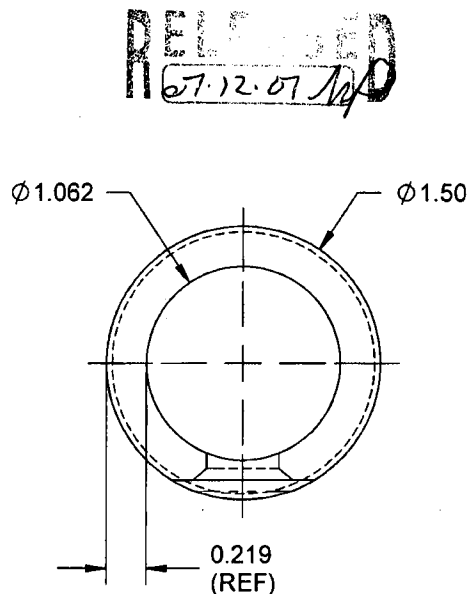
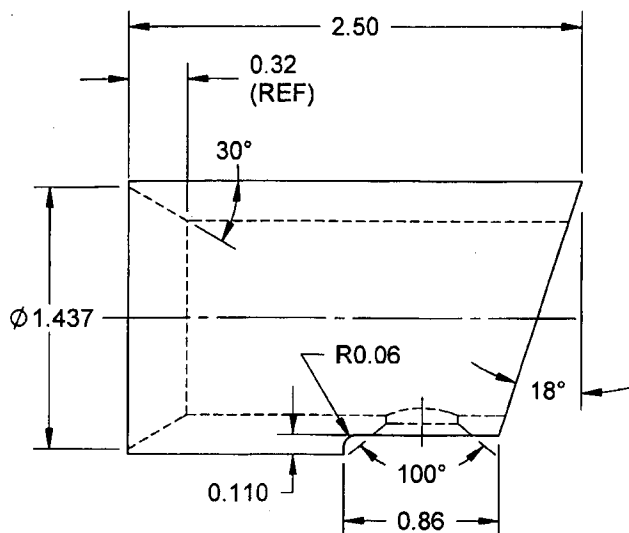
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CHECKED <i>JS</i>	APPROVED <i>MD</i>	DRAWING NO. D3354	REV. C SHEET 7 OF 7
DATE 07.12.06		TITLE LEFT ARM WELDMENT	SCALE 1:1



### D3354-9 HANDLE SOCKET

#### NOTES:

- 1) MATERIAL: AISI 1010-1025 SEAM LESS ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, (REF. DART SPEC. M1020TR1.250W.219)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

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